WHAT IS CLAIMED IS:

1. A method for manufacturing an electron-emitting device possessing an electroconductive film upon which an electron-emission region is formed,

wherein the formation process of formation of said electron-emission region includes a process of application of metal compound-containing material and film thickness controlling agent to the substrate.

2. A method for manufacturing an electron-emitting device according to Claim 1,

wherein the application process to said substrate is conducted by means of an ink-jet method.

3. A method for manufacturing an electron-emitting device according to Claim 2,

wherein the application process to said substrate conducted by means of an ink-jet method is conducted employing a plurality of ink-jet nozzles.

4. A method for manufacturing an electron-emitting device according to Claim 3,

wherein the application process to said substrate is conducted by means of ejecting said metal compound-containing material and said thickness controlling agent from respective ink-jet nozzles.

5. A method for manufacturing an electron-emitting device according to any of Claims 1 through 4, wherein said metal-compound-containing material applied to said substrate is subsequently baked.

6. A method for manufacturing an electron-emitting device according to any of Claims 1 through 4, wherein said metal-compound-containing material applied to said substrate is subsequently baked, and an electron-emission region is formed at the electroconductive film formed by means of said baking.

7. A method for manufacturing an electron-emitting device according to Claim 1, wherein said thickness-controlling agent is a decomposer to decompose said metal compound-containing material.

8. A method for manufacturing an electron-emitting device according to Claim 7, wherein said application process to said substrate is a process wherein said metal compound-containing material is applied and then subsequently said decomposer is applied.

9. A method for manufacturing an electron-emitting device according to Claim 7,

wherein the application process to said substrate is conducted by means of an ink-jet method.

10. A method for manufacturing an electron-emitting device according to Claim 9,

wherein the application process to said substrate conducted by means of an ink-jet method is conducted employing a plurality of ink-jet nozzles.

11. A method for manufacturing an electron-emitting device according to Claim 10,

wherein the application process to said substrate is conducted by means of ejecting said metal compound-containing material and said thickness controlling agent from respective ink-jet nozzles.

12. A method for manufacturing an electron-emitting device according to Claim 11,

wherein said application process to said substrate is a process wherein said metal compound-containing material is applied and then subsequently said decomposer is applied.

13. A method for manufacturing an electron-emitting device according to any of Claims 7 through 12,

wherein said metal-compound-containing material

applied to said substrate is subsequently baked.

14. A method for manufacturing an electron-emitting device according to any of Claims 7 through 12,

wherein said metal-compound-containing material applied to said substrate is subsequently baked, and an electron-emission region is formed at the electroconductive film formed by means of said baking.

15. A method for manufacturing an electron-emitting device according to Claim 7,

wherein said decomposer is at least one type of a decomposer selected from the following: reducing decomposers, hydrolytic decomposers, catalytic decomposers, and acid decomposers.

16. A method for manufacturing an electron-emitting device according to Claim 15,

wherein said reducing decomposer is at least one type selected from the following: formic acid, aldehydes, and hydrazine.

17. A method for manufacturing an electron-emitting device according to Claim 15,

wherein said catalytic decomposer is porous aluminum oxide.

18. A method for manufacturing an electron-emitting device according to Claim 1,

wherein said film thickness controlling agent is an aqueous solution containing aqueous resin.

19. A method for manufacturing an electron-emitting device according to Claim 18,

wherein said application process to said substrate is a process wherein aqueous solution containing said aqueous resin is applied and then subsequently said metal compound-containing material is applied.

20. A method for manufacturing an electron-emitting device according to Claim 18,

wherein the application process to said substrate is conducted by means of an ink-jet method.

21. A method for manufacturing an electron-emitting device according to Claim 20,

wherein the application process to said substrate conducted by means of an ink-jet method is conducted employing a plurality of ink-jet nozzles.

22. A method for manufacturing an electron-emitting device according to Claim 21,

wherein the application process to said substrate

is conducted by means of ejecting said metal compound-containing material and aqueous solution containing said aqueous resin from respective ink-jet nozzles.

23. A method for manufacturing an electron-emitting device according to Claim 22,

wherein said application process to said substrate is a process wherein aqueous solution containing said aqueous resin is applied and then subsequently said metal compound-containing material is applied.

24. A method for manufacturing an electron-emitting device according to any of Claims 18 through 23,

wherein said metal-compound-containing material applied to said substrate is subsequently baked.

25. A method for manufacturing an electron-emitting device according to any of Claims 18 through 23,

wherein said metal-compound-containing material applied to said substrate is subsequently baked, and an electron-emission region is formed at the electroconductive film formed by means of said baking.

26. A method for manufacturing an electron-emitting device according to Claim 18,

wherein said aqueous resin is an acrylic acid derivative resin.

27. A method for manufacturing an electron-emitting device according to Claim 18,

wherein said aqueous resin is an alcohol acid derivative resin.

28. A method for manufacturing an electron-emitting device according to Claim 18,

wherein said aqueous resin is an cellulose acid derivative resin.

29. A method for manufacturing an electron-emitting device according to Claim 18,

wherein said aqueous resin is a dextrin.

30. A method for manufacturing an electron-emitting device according to Claim 1,

wherein said thickness-controlling agent is a decomposer to decompose said metal compound-containing material and an aqueous solution of aqueous resin.

31. A method for manufacturing an electron-emitting device according to Claim 30,

wherein the application process to said substrate is conducted in the order of: application of said

aqueous solution of aqueous resin; application of said metal-compound-containing material; and application of said decomposer.

32. A method for manufacturing an electron-emitting device according to Claim 30,

wherein the application process to said substrate is conducted by means of an ink-jet method.

33. A method for manufacturing an electron-emitting device according to Claim 32,

wherein the application process to said substrate conducted by means of an ink-jet method is conducted employing a plurality of ink-jet nozzles.

34. A method for manufacturing an electron-emitting device according to Claim 33,

wherein the application process to said substrate is conducted by means of ejecting said aqueous solution containing aqueous resin, said metal compound-containing material, and said decomposer from respective ink-jet nozzles.

35. A method for manufacturing an electron-emitting device according to Claim 34,

wherein the application process to said substrate is conducted in the order of: application of said

aqueous solution containing aqueous resin; application of said metal-compound-containing material; and application of said decomposer.

36. A method for manufacturing an electron-emitting device according to any of Claims 30 through 35,

wherein said metal-compound-containing material applied to said substrate is subsequently baked.

37. A method for manufacturing an electron-emitting device according to any of Claims 30 through 35,

wherein said metal-compound-containing material applied to said substrate is subsequently baked, and an electron-emission region is formed at the electroconductive film formed by means of said baking.

38. A method for manufacturing an electron-emitting device according to Claim 30,

wherein said decomposer is at least one type of a decomposer selected from the following: reducing decomposers, hydrolytic decomposers, catalytic decomposers, and acid decomposers.

39. A method for manufacturing an electron-emitting device according to Claim 38,

wherein said reducing decomposer is at least one type selected from the following: formic acid, aldehydes, and hydrazine.

40. A method for manufacturing an electron-emitting device according to Claim 38,

wherein said catalytic decomposer is porous aluminum oxide.

41. A method for manufacturing an electron-emitting device according to Claim 30,

wherein said aqueous resin is an acrylic acid derivative resin.

42. A method for manufacturing an electron-emitting device according to Claim 30,

wherein said aqueous resin is an alcohol acid derivative resin.

43. A method for manufacturing an electron-emitting device according to Claim 30,

wherein said aqueous resin is an cellulose acid derivative resin.

44. A method for manufacturing an electron-emitting device according to Claim 30,

wherein said aqueous resin is a dextrin.

45. A method for manufacturing an electron source comprising: a substrate; and a plurality of electron-emitting devices arrayed upon said substrate;

wherein said electron-emitting devices are manufactured according to any of Claims 1 through 4, 7 through 12, 15 through 23, 26 through 35, 38 through 44.

46. A method for manufacturing an electron source according to Claim 45,

wherein said metal-compound-containing material applied to said substrate is subsequently baked.

47. A method for manufacturing an electron source according to Claim 45,

wherein said metal-compound-containing material applied to said substrate is subsequently baked, and an electron-emission region is formed at the electroconductive film formed by means of said baking.

48. A method for manufacturing an image-forming apparatus comprising: a substrate; an electron source comprised of a plurality of electron-emitting devices arrayed upon said substrate, and an image-forming member;

wherein said electron-emitting devices are manufactured according to any of Claims 1 through 4, 7

through 12, 15 through 23, 26 through 35, 38 through 44.

49. A method for manufacturing an image-forming apparatus according to Claim 48,

wherein said metal-compound-containing material applied to said substrate is subsequently baked.

50. A method for manufacturing an image-forming apparatus according to Claim 48,

wherein said metal-compound-containing material applied to said substrate is subsequently baked, and an electron-emission region is formed at the electroconductive film formed by means of said baking.